



#12

Sheet 1 of 2

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-4853	Application No. 10/058,740
		Applicant Thazha P. Prakash, et al.	
		Filing Date January 28, 2002	Group 1646
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
u	31	Copy of the PCT International Search Report dated May 2, 2003 (PCT/US02/20940)	
u	32	Prakash, T.P., et al., 2'-O-[2-(methylthio)ethyl]-modified oligonucleotide: an analogue of 2'-O-[2-(methoxy)-ethyl]-modified oligonucleotide with improved protein binding properties and high binding affinity to target RNA," <i>Biochemistry</i> , 2002, 41, 11642-11648	
EXAMINER		DATE CONSIDERED	

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Sheet 2 of 2

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<b>U. S. PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Name	Class	Subclass	
2	33	6,147,200	11/14/00	Manoharan, et al.	536	23.1	
<del>ME</del>	34	<del>US 6,239,272 B1</del>	<del>05/29/01</del>	<del>Beigelman, et al.</del>	<del>536</del>	<del>24.5</del>	
<b>FOREIGN PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Country	Translation		
					YES	NO	
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			
<i>Per Li</i>				4/29/04			

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U.S. Department of Commerce  
Patent and Trademark Office

Docket No.  
**ISIS-4853**

Serial No.  
**10/058,740**

Applicant  
**Muthiah Manoharan et al.**

Filing Date  
**January 28, 2002**

Group  
**Not yet Assigned**

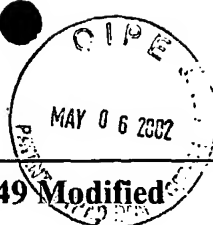
**U. S. PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Name	Class	Subclass
<i>M</i>	AX	5,149,798	9/22/92	Agrawal et al.	536	27
	AY	5,539,082	7/23/96	Nielsen et al.	530	300
	AZ	6,239,272	05/29/01	Beigelman et al.	536	24.5
<i>M</i>	BA	09/115,043	7/14/98	Manoharan et al.		

**FOREIGN PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Country	Translation YES NO	
<i>M</i>	BB	92/20702	11/26/92	WO		
<i>M</i>	BC	92/20703	11/26/92	WO		
<i>M</i>	BD	93/12129	6/24/93	WO		

**EXAMINER***[Signature]***DATE CONSIDERED***4/29/04*



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		Filing Date <b>January 28, 2002</b>	Group <b>Not yet Assigned</b>
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
<i>M</i>	AA ✓	Anklam, E. et al., "Pulse Radiolytic Studies of 1-Halo-2-(methylthio)ethanes in Hexane and 1,2-Dichlorethane: Formation of an Intermolecular Species with a Three-Electron Bond between Sulfur and Iodine", <i>Helv. Chim. Acta</i> , <b>1987</b> , 70, 2110-2117	
<i>J</i>	AB ✓	Baker, A. D. et al., "Ultra long-range through-bond interactions in dithiaspirane disulfoxides as revealed by photoelectron spectroscopy", <i>Tetrahedron Lett.</i> , <b>1983</b> , 24(29), 2957-2960	
<i>M</i>	AC ✓	Bannwarth, W., "Synthesis of Oligodeoxynucleotides by the Phosphite-Triester Method Using Dimer Units and Different Phosphorous-Protecting Groups," <i>Helvetica Chim. Acta</i> , <b>1985</b> , 68, 1907-1913	
<i>M</i>	AD ✓	Bayer, E. et al., "Improved Conditions for Solid Phase Synthesis for Oligonucleotides on PS-PEG Copolymers," <i>Z. Naturforsch.</i> , <b>1995</b> , 50b, 1096-1100	
<i>M</i>	AE ✓	Beaucage, S. L. et al., "Deoxynucleoside Phosphoramidites-A New Class of Key Intermediates for Deoxypolynucleotide Synthesis," <i>Tetrahedron Letts.</i> , <b>1981</b> , 22(20), 1859-1862	
<i>M</i>	AF ✓	Beaudry et al., "Determination of drug-plasma protein binding using human serum albumin chromatographic column and multiple linear regression model," <i>Biomed. Chromatogr.</i> , <b>1999</b> , 13, 401-406	
<i>M</i>	AG ✓	Divakar, K. J. et al., "4-(1,2,4-Triazol-1-yl)-and 4-(3-Nitro-1,2,4-triazol-1-yl)-1-(β-D-2,3,5-tri-O-acetyl-arabinofuranosyl) pyrimidin-2(1H)-ones. Valuable Intermediates in the Synthesis of Derivatives of 1-(β-D-Arabinofuranosyl)cytosine (Ara-C)," <i>J.C.S. Perkin I</i> , <b>1982</b> , 1171-1176	
<i>M</i>	AH ✓	Egholm, M. et al., "Peptide Nucleic Acids (PNA). Oligonucleotide Analogues with an Achiral Peptide Backbone," <i>J. Am. Chem Soc.</i> , <b>1992</b> , 114, 1895-1897	
<i>M</i>	AI ✓	Egholm, M. et al., "Recognition of Guanine and Adenine in DNA by Cytosine and Thymine Containing Peptide Nucleic Acids (PNA)," <i>J. Am. Chem Soc.</i> , <b>1992</b> , 114, 9677-9678	
<i>M</i>	AJ ✓	Khorana, H. et al., "Studies on Polynucleotides: Total Synthesis of the Structural Gene for an Alanine Transfer Ribonucleic Acid from Yeast," <i>J. Mol. Biol.</i> , <b>1972</b> , 72, 209-217	
<i>M</i>	AK ✓	Knudsen, H. et al., "Antisense Properties of duplex-and triplex-forming PNA," <i>Nucl. Acids Res.</i> , <b>1996</b> , 24(3), 494-500	
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	<b>AL</b> ✓	Kumar, G. et al., "Improvements in Oligodeoxyribonucleotide Synthesis: Methyl N,N-Dialkylphosphoramidite Dimer Units for Solid Support Phosphite Methodology," <i>J. Org. Chem.</i> , <b>1984</b> , 49, 4905-4912	
	<b>AM</b> ✓	Kumar, P. et al., Express Protocol for Functionalization of Polymer Supports for Oligonucleotide Synthesis," <i>Nucleosides and Nucleotides</i> , <b>1996</b> , 15(4), 879-888	
	<b>AN</b> ✓	LaFrancois, C. J. et al., "Synthesis and Characterization of Isotopically Enriched Pyrimidine Deoxynucleoside Oxidation Damage Products," <i>Chem. Res. Toxicol.</i> , <b>1998</b> , 11(1), 75-83	
	<b>AO</b> ✓	Miura, K. et al., "Blockwise Mechanical Synthesis of Oligonucleotides by the Phosphoramidite Method," <i>Chem Pharm. Bull.</i> , <b>1987</b> , 35(2), 833-836	
	<b>AP</b> ✓	Montgomery, J. et al., "Synthesis of Potential Anticancer Agents. XX. 2-Fluoropurines," <i>Chem. Soc.</i> , <b>1960</b> , 82, 463-468	
	<b>AQ</b> ✓	Nielsen, P. E. et al., "Sequence-Selective Recognition of DNA by Strand Displacement with a Thymine-Substituted Polyamide," <i>Science</i> , <b>1991</b> , 254, 1497-1500	
	<b>AR</b> ✓	Nielsen, P. E. et al., "Strand Displacement to Binding of a Duplex-Forming Homopurine PNA to a Homopyrimidine Duplex DNA Target," <i>J. Am. Chem. Soc.</i> , <b>1996</b> , 118, 2287-2288	
	<b>AS</b> ✓	Patel, D. J., "Marriage of Convenience," <i>Nature</i> , <b>1993</b> , 365, 490-492	
	<b>AT</b> ✓	Rasmussen, H. et al., "Crystal structure of a peptide nucleic acid (PNA) duplex at 1.7 Å resolution," <i>Nature Struct. Biol.</i> , <b>1997</b> , 4(2), 98-101	
	<b>AU</b> ✓	Reese, C. B. et al., "The Chemical Synthesis of Oligo- and Poly-Nucleotides by the Phosphotriester Approach," <i>Tetrahedron</i> , <b>1978</b> , 34, 3143-3179	
	<b>AV</b> ✓	Ross, B. S. et al., "A novel and economical synthesis of 2'-O-alkyl-uridines," <i>Nucleosides Nucleotides</i> , <b>1997</b> , 16(7-9), 1641-1643	
	<b>AW</b> ✓	Wolter, A. et al., "Polymer Support Oligonucleotide Synthesis XX: Synthesis of a Henectacosa Deoxynucleotide by use of a Dimeric Phosphoramidite," <i>Nucleosides &amp; Nucleotides</i> , <b>1986</b> , 5(1), 65-77	
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